CIRCULAR No. 3.

United States Department of Agriculture,

DIVISION OF STATISTICS.

THE FARMERS' INTEREST IN FINANCE.

LETTER OF TRANSMITTAL.

WASHINGTON, D. C., *December 4, 1896.*

SIR: On November 23 you addressed to me the following letter of instruction:

U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D. C., November 23, 1896.

SIR: With agricultural products farmers buy money—that is, when others buy food, fibers, or tobacco from the farmers they sell money to the farmers. The purchasers of farm staples demand the highest quality in the things they buy. American farmers can not sell pork, beef, fruit, cereals, cotton, or tobacco that will not pass inspection in any markets of the globe.

Money is bought to sell again, because the exchangeable things with which money is bought have only the specific purchasing power to buy money of those who want those things. But honest money has a general purchasing power all over the world to buy anything which is for sale. Therefore the farmer should buy with the things he sells that money which will, in return, when he again sells it for other things, bring him a value at least equal to that with which he parted when he bought that money.

Therefore American farmers are interested in purchasing with the fruit of their toil the best quality of money—that is, money having a purchasing power with a minimum fluctuation in all countries.

In view of the foregoing and in accordance with the act creating the United States Department of Agriculture, which prescribes its duty to be "to diffuse among the people of the United States useful information on subjects connected with agriculture in the most general and comprehensive sense of that word," you are hereby instructed to prepare a special report which shall show the popular sources whence comes any demand for a reconstruction of the coinage and monetary system of the United States, and what interests probably prompt such demand.

In preparing this "useful information on subjects connected with agriculture," carefully collate from the work of the last national census such facts as may serve to bring out plainly the population, the agricultural wealth and the intelligence, the manufacturing interests and the investments of each State which at the recent election declared for the free coinage of silver at 16 to 1 or for the present gold standard.

A large number of citizens have contended that the relative value of a silver dollar to a gold dollar depends upon an enacted ratio; in short, upon a law of Congress.

But a larger number of American citizens have contended that the relative value of gold coins and silver coins is entirely dependent upon the relative commercial value of the bullion contained in those coins.

It is desirable, therefore, in this connection to show also what relation, if any, exists between the prices of either of the money metals and the price of any farm staple, like wheat, for instance. And the reply, taken as a whole, ought to show whether the mint value of a money metal can be made by statute greater than the bullion value thereof.

Very respectfully, yours,

J. STERLING MORTON,
Secretary.

HENRY A. ROBINSON, Esq.,
Chief of the Division of Statistics,
U. S. Department of Agriculture.

In accordance with the above instructions, I directed Mr. Henry Farquhar, assistant statistician, to undertake the preparation of the report, which he has completed, and which is respectfully transmitted for your consideration and approval. In addition to the facts requested he has also undertaken to show, in both tabular and graphic form, from data collected by the Division of Statistics, the purchasing power of the farmer's product, accompanying the same with the necessary explanations.

Respectfully,

HENRY A. ROBINSON,
Statistician.

Hon. J. STERLING MORTON,
Secretary.

THE SOURCE OF THE DEMAND FOR A CHANGE OF STANDARD.

The States which gave a majority for the present standard of value appear to be as nearly as possible equal in number with those which gave a majority for free silver, classifying Kentucky with the former and Wyoming and South Dakota with the latter, namely, 23 and 22, respectively.

SOURCES AND METHOD OF COMPILATION.

In the accompanying table the States are arranged in the order usually followed in the Abstract of the Eleventh Census, from which all the data, except for area and savings banks, are taken. The square miles of land area are as given in the reports of the General Land Office. The number of depositors in savings banks for the year ended June, 1895, is taken from page 513 of the last report of the Comptroller of the Currency, and the estimated population for that date, entered on the page preceding, is used to derive the percentage ratio of depositors to population. In two gold standard[1] and three free silver[1] States the number is "partially estimated."

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[1]For convenience, the terms "gold standard" and "free silver" will be used to distinguish the States giving a majority for the present gold standard and for free coinage of silver, respectively.

TABLE I.—*Population, education, wealth, etc., according to the Eleventh Census, of States arranged by Presidential vote in 1896.*

States.	Area.	Electoral vote.	Population.	Illiterate whites 10 years of age and over.			School expenditures.	
				Number of native.	Ratio of native.	Ratio of total.	Total.	Per capita.
1	2	3	4	5	6	7	8	9
For gold standard.	*Square miles.*				*Per ct.*	*Per ct.*		
Maine	29,895	6	661,086	11,443	2.5	5.4	$1,114,902	$1.69
New Hampshire	9,005	4	376,530	3,679	1.5	6.8	814,394	2.16
Vermont	9,135	4	332,422	7,211	3.2	6.7	689,917	2.08
Massachusetts	8,040	15	2,238,943	9,727	.8	6.1	8,286,062	3.70
Rhode Island	1,085	4	345,506	4,087	2.3	9.6	917,990	2.66
Connecticut	4,845	6	746,258	4,300	1	5.1	2,123,839	2.85
New York	47,620	36	5,997,853	57,362	1.8	5.4	17,392,274	2.90
New Jersey	7,455	10	1,444,933	21,351	2.7	5.7	3,457,525	2.39
Pennsylvania	44,985	32	5,258,014	110,737	3.5	6.4	12,828,645	2.44
Delaware	1,960	3	168,493	6,068	6.2	7.4	329,008	1.95
Maryland	9,860	8	1,042,390	32,105	5.9	7	1,910,663	1.83
West Virginia	24,645	6	762,794	65,420	12.9	13	1,284,991	1.68
Ohio	40,760	23	3,672,316	82,673	3.5	4.7	10,755,246	2.93
Indiana	35,910	15	2,192,404	78,638	5.3	5.8	5,900,233	2.69
Illinois	56,000	24	3,826,351	64,380	3.1	4.9	11,288,529	2.95
Michigan	57,430	14	2,093,889	27,016	2.5	5.7	5,446,416	2.60
Wisconsin	54,450	12	1,686,880	15,613	2.1	6.6	3,711,286	2.20
Minnesota	79,205	9	1,301,826	7,112	1.4	5.9	4,033,516	3.10
Iowa	55,475	13	1,911,896	20,649	1.8	3.5	6,477,256	3.39
North Dakota	70,195	3	182,719	929	1.8	5.8	626,946	3.45
Kentucky	40,000	13	1,858,635	178,159	16.1	15.8	2,026,552	1.12
Oregon	94,560	4	313,767	3,302	1.8	3	830,369	2.81
California	155,980	9	1,203,130	10,113	1.7	4.5	5,119,097	4.24
Total	938,495	273	39,624,035	822,074	3.7	6.1	107,415,656	2.71
Percentage	35.2	61.1	63.8	40.7	.....	.....	77.9	.....
For free silver.								
Virginia	40,125	12	1,665,980	103,265	14	13.9	1,577,347	.95
North Carolina	48,580	11	1,617,947	173,545	23.1	23	718,225	.44
South Carolina	30,170	9	1,151,149	59,063	18.1	17.9	460,260	.41
Georgia	58,980	13	1,837,353	113,945	16.5	16.3	967,590	.53
Florida	54,240	4	391,422	16,685	11.3	11.3	476,503	1.22
Missouri	68,735	17	2,679,184	112,938	6.8	7.1	5,128,260	1.91
South Dakota	76,850	4	328,808	1,811	1.2	4.1	1,173,757	3.57
Nebraska	76,840	8	1,058,910	7,412	1.3	2.8	3,301,119	3.12
Kansas	81,700	10	1,427,096	17,157	2	2.9	4,972,967	3.52
Tennessee	41,750	12	1,767,518	170,318	18	17.8	1,300,351	.85
Alabama	51,540	11	1,513,017	106,235	18.4	18.2	547,880	.37
Mississippi	46,340	9	1,289,600	44,987	11.9	11.9	1,097,916	.85
Louisiana	45,420	8	1,118,587	72,013	20.3	20.1	704,586	.63
Texas	262,290	15	2,235,523	89,829	8.3	10.8	3,173,104	1.42
Arkansas	53,045	8	1,128,179	92,052	16.6	16.3	1,019,060	.92
Montana	145,310	3	132,159	1,020	1.6	4.1	364,083	2.75
Wyoming	97,575	3	60,705	427	1.3	3	152,918	2.52
Colorado	103,645	4	412,198	9,235	3.8	4.8	1,681,379	4.08
Utah	82,190	3	207,905	2,219	2.3	5.1	394,677	1.90
Nevada	109,740	3	45,761	173	.8	4.2	162,597	3.55
Idaho	84,290	3	84,385	867	1.9	3.5	168,318	1.99
Washington	66,880	4	349,390	2,467	1.3	3.1	944,190	2.70
Total	1,726,235	174	22,492,776	1,197,663	11.4	11.4	30,487,087	1.37
Percentage	64.8	38.9	36.2	59.3	.....	.....	22.1	.....
Total of States	2,664,730	447	62,116,811	2,019,737	6.1	7.6	137,902,743	2.23

TABLE I.—*Population, education, wealth, etc., according to the Eleventh Census, of States arranged by Presidential vote in 1896*—Continued.

States.	Total value.				Real estate mortgages.	
	Personal property.	Real property.	Farm lands.	Farm products.	Total amount.	Average interest rate.
1	10	11	12	13	14	15
For gold standard.						*Per cent.*
Maine	$235,064,569	$254,069,559	$93,567,730	$22,049,229	$32,627,208	6.15
New Hampshire	148,997,740	176,131,000	66,192,600	13,761,050	18,968,259	5.98
Vermont	127,189,129	138,378,194	80,427,490	20,364,980	27,907,687	5.97
Massachusetts	905,007,653	1,898,637,794	127,538,284	28,072,560	323,277,668	5.44
Rhode Island	169,422,550	334,740,002	21,873,479	4,218,300	36,778,243	5.72
Connecticut	291,698,328	543,421,891	95,000,595	17,924,310	79,921,071	5.64
New York	2,758,997,324	5,817,704,667	968,127,286	161,593,069	1,607,874,301	5.49
New Jersey	484,271,142	961,013,972	159,262,840	28,997,349	232,565,919	5.73
Pennsylvania	2,409,569,265	3,781,177,285	922,240,233	121,328,348	613,105,802	5.61
Delaware	69,958,276	105,720,519	39,586,080	6,481,590	16,122,696	5.71
Maryland	340,165,131	745,307,917	175,058,550	26,443,364	64,577,803	5.86
West Virginia	190,227,404	248,727,477	151,889,300	20,439,000	19,702,505	6.06
Ohio	1,421,127,366	2,530,255,018	1,050,031,828	133,232,498	259,842,188	6.56
Indiana	807,012,889	1,288,163,737	754,789,110	94,759,262	110,730,643	6.84
Illinois	1,772,709,279	3,294,042,440	1,262,870,587	184,759,013	384,299,150	6.70
Michigan	945,725,818	1,149,290,454	556,190,670	83,651,390	150,472,700	7.13
Wisconsin	734,957,932	1,098,350,591	477,524,507	70,990,645	121,838,168	6.84
Minnesota	657,688,772	1,034,163,155	340,059,470	71,238,230	197,745,989	7.66
Iowa	1,025,647,323	1,261,701,010	857,581,022	159,347,844	199,774,171	7.63
North Dakota	161,089,407	175,917,099	75,310,305	21,264,938	25,777,480	9.35
Kentucky	460,438,928	711,793,385	346,339,360	65,948,485	45,693,749	6.25
Oregon	210,221,391	380,174,803	115,819,200	19,026,120	22,928,437	9.45
California	862,619,972	1,671,113,655	697,116,630	87,033,290	241,050,181	8.81
Total	17,189,807,388	29,599,995,624	9,439,358,156	1,462,924,735	4,833,582,018	6.20
Percentage	68.3	76.1	71.2	59.6	81.1	.....
For free silver.						
Virginia	391,675,517	470,642,553	254,490,600	42,244,458	28,691,726	6.02
North Carolina	395,173,773	278,975,226	183,977,010	50,070,530	21,471,428	7.72
South Carolina	224,382,851	176,528,452	99,104,600	51,337,985	13,780,302	8.37
Georgia	437,070,065	415,339,384	152,096,230	83,371,482	27,387,590	8.09
Florida	193,874,990	195,614,398	72,745,180	12,086,330	15,505,119	9.78
Missouri	959,171,744	1,438,731,201	625,858,361	109,751,024	214,609,772	7.68
South Dakota	218,218,098	206,923,201	107,466,335	22,047,279	36,115,773	9.46
Nebraska	567,272,416	708,413,098	402,358,913	66,837,617	132,902,322	8.30
Kansas	859,813,325	939,530,176	559,726,046	95,070,080	243,146,826	8.68
Tennessee	404,194,633	483,761,510	242,700,540	55,194,181	40,421,396	6
Alabama	351,409,560	271,363,944	111,051,390	66,240,190	39,027,983	7.93
Mississippi	245,849,664	208,393,024	127,423,157	73,342,995	19,075,986	9.50
Louisiana	223,339,751	271,961,846	85,381,270	54,343,953	28,513,909	7.67
Texas	835,158,995	1,220,417,771	399,971,289	111,699,430	93,864,178	9.60
Arkansas	221,292,291	233,855,131	118,574,422	53,128,155	14,366,595	9.06
Montana	245,364,412	207,770,797	25,512,340	6,273,415	8,729,907	10.61
Wyoming	77,280,353	92,493,357	14,460,880	2,241,590	4,967,065	10.22
Colorado	542,386,102	603,326,165	85,035,180	13,136,810	85,058,793	8.57
Utah	166,293,981	183,117,253	28,402,780	4,891,460	8,040,829	9.70
Nevada	88,100,693	92,222,975	12,339,410	2,705,660	2,194,995	9.48
Idaho	112,289,784	95,606,807	17,431,580	3,848,930	3,167,249	10.60
Washington	244,333,577	516,365,149	83,461,660	13,674,930	44,078,449	8.84
Total	7,963,946,575	9,311,353,418	3,809,479,173	993,538,484	1,125,118,186	8.36
Percentage	31.7	23.9	28.8	40.4	18.9	.....
Total of States	25,153,753,963	38,911,349,042	13,248,837,329	2,456,463,219	5,958,700,204	6.60

TABLE I.—*Population, education, wealth, etc., according to the Eleventh Census, of States arranged by Presidential vote in 1896*—Continued.

States.	Total value.		Production of silver mines.	Savings bank depositors, June, 1895.	
	Manufactured products.	Wages of employees in manufacturing.		Number.	Ratio to population.
1	16	17	18	19	20
For gold standard.					
			Ounces.		*Per cent.*
Maine	$95,639,500	$26,526,217		155,704	23.4
New Hampshire	85,770,549	24,248,054		163,792	41.9
Vermont	38,340,066	10,096,549		94,994	28.5
Massachusetts	888,160,403	239,670,509		1,247,090	46.6
Rhode Island	142,500,625	37,927,921		131,623	34.5
Connecticut	248,336,364	75,990,606		337,254	41.1
New York	1,711,577,671	466,846,642		1,615,178	24.6
New Jersey	354,573,571	96,778,736		144,160	8.8
Pennsylvania	1,331,794,901	305,591,003		264,642	4.5
Delaware	37,571,848	9,892,387		18,648	10.4
Maryland	171,842,593	41,526,832		148,342	13.5
West Virginia	38,702,125	8,330,997			
Ohio	641,688,064	158,768,883		86,183	2.2
Indiana	226,825,082	51,749,976		15,636	.7
Illinois	908,640,280	171,523,579		94,724	2.3
Michigan	277,896,706	66,347,798	14,607		
Wisconsin	248,546,164	51,843,708		1,439	.1
Minnesota	192,033,478	38,189,239		42,777	2.6
Iowa	125,049,183	25,878,997		77,809	3.8
North Dakota	5,028,107	1,002,881			
Kentucky	126,719,857	27,761,746			
Oregon	41,432,174	11,535,229	17,851	1,893	.5
California	213,403,996	51,538,780	1,062,578	168,638	12.1
Total	8,152,123,307	1,999,567,269	1,095,036	4,810,346	11
Percentage	87.4	88.2	2.3	93.7	
For free silver.					
Virginia	88,363,824	19,644,850	10		
North Carolina	40,375,450	7,830,536	3,000	6,039	.4
South Carolina	31,926,681	6,590,983	179	17,418	1.5
Georgia	68,917,020	17,312,196	359	5,747	.3
Florida	18,222,890	6,513,068		1,148	.2
Missouri	324,561,993	76,417,364			
South Dakota	5,682,748	1,098,418	104,672		
Nebraska	93,037,794	12,984,571			
Kansas	110,219,805	16,328,485			
Tennessee	72,355,286	16,899,351		8,703	.5
Alabama	51,226,605	12,676,029	77		
Mississippi	18,705,834	4,913,863			
Louisiana	57,806,713	13,159,564		9,918	.8
Texas	70,433,551	18,586,338	323,438		
Arkansas	22,659,179	5,749,888			
Montana	5,507,573	1,948,213	13,511,455	2,844	1.3
Wyoming	2,367,601	878,646			
Colorado	42,480,205	12,235,734	18,375,551		
Utah	8,911,047	2,715,895	7,005,193	6,271	2.5
Nevada	1,105,063	445,503	4,696,605		
Idaho	1,396,096	324,202	3,137,508		
Washington	41,768,022	12,658,614	28,464	5,512	1
Total	1,178,030,980	267,962,221	47,186,511	63,600	.3
Percentage	12.6	11.8	97.7	1.3	
Total of States	9,330,154,287	2,267,529,490	48,281,547	4,873,946	7.1

The comparison in respect to illiteracy is confined to native whites, thus excluding the most illiterate classes of the population—the colored in the free silver territory and the foreign born in the gold standard territory. Column 6 shows the ratio of illiterates to total population, for native whites over 10 years of age. In column 7 the corresponding ratio for all white illiterates, both native and foreign, is shown, so that

either figure may be available, according as one or the other is deemed more significant. In column 9, showing school expenditure per capita, the numbers for some of the States are greater than would be obtained by division of the total reported expenditure by the population in the fourth column. This is explained in the census report as due to the failure of certain counties to furnish statistics, and the subtraction of the population of those counties from the total population; allowance is made for this circumstance in finding the averages for the two series of States.

All valuations are "true," not "assessed," those included as personal being divided in the census statement under the headings of (1) stock, implements, etc., on farms; (2) mines and their products; (3) precious metals; (4) machinery and manufactured products; (5) railroads and their equipments; (6) telegraphs, telephones, shipping, and canals; (7) miscellaneous. The "real" valuation of course includes improvements. The real estate mortgages include those on acres and on lots together. Percentages relate to totals for the States, the District of Columbia and the four Territories being excluded.

AREA AND POPULATION.

It will be seen that the area carried for free silver is nearly double the area for the gold standard, while its population does not greatly exceed half the latter. The average of inhabitants per square mile in the gold standard States is three and one-fourth times that in the free silver States.

The percentage of electoral votes is larger in the free silver States than that of population, showing that those States are favored by that method of choosing the President.

EDUCATION IN THE TWO AREAS.

Of the total number of illiterate native whites, the free silver area contains nearly three-fifths. Relatively to total native white population over 10 years of age, the percentage of illiterates in the free silver States is three times that in the gold standard States.

Including all whites in the comparison, the percentage in the free silver States is not increased. Over the western part of this territory the foreign born of the white population are relatively more illiterate, in about the same degree as throughout the gold standard States; while over the southern part the native whites are, except in Texas, relatively more illiterate than the foreign born. The percentage of illiteracy in the gold standard States, owing to the relatively large proportion and deficient education of the foreign element in those States, is greatly increased by including it. The general average is, however, brought very little above one-half of that for the free silver States.

The reported total expenditures for schools (excluding "colleges, academies, normal schools, and other educational purposes") in the gold

standard States are three and a half times as great as in the free silver States. This is higher than the ratio of population, as is shown also by the data in column 9. It is also higher than the ratio of personal property, and even higher than the ratio of real property. The average expenditure per capita is in the gold standard States very nearly double that in the free silver States.

The gold standard list includes one State, Kentucky, whose vote was so nearly an even balance that its decided position in either rank will perhaps be questioned. The inquiry may, therefore, arise, how the gold standard average would be altered by omission of that State. Hence it appears worth while to add that the 40.7 per cent of native while illiterates would thus be reduced to 31.9, the ratio of such illiterates from 3.7 to 3, little more than one-fourth of the free silver average, and the ratio of total white illiterates from 6.1 to 5.7, just half the free silver figure. The average per capita school expenditure would be increased to $2.79, more than double the free silver average, by the same omission.

PROPERTY, INDUSTRIES, AND PRODUCTION.

Property, both personal and real, shows a higher percentage than population in the gold standard States. The farm lands (column 12), though the disproportion is less for these than for other real estate, show an excess in the same direction, while the total of agricultural products (column 13) gives for this territory a percentage somewhat lower than that of population, this not very large difference being all that the census tables have to tell us of the relatively greater devotion of the free silver States to agriculture. Notwithstanding the fact that they are less agricultural, the gold standard States exceed the others far less in value of personal than in that of real property, showing that real estate values are relatively lower and not higher, as a rule, among agricultural peoples.

On the average, for each inhabitant of a gold standard State there are $37 worth of agricultural products, and for each free silver inhabitant $44 worth. The total value of manufactured products per inhabitant is $52 in the free silver States, while in the gold standard States it rises to $206. The latter States, as the table shows, produce almost seven-eighths of the manufactures of the country, the scope of manufacturing being extended far enough in the census to cover grist-mill, bakery, dairy, slaughtering, and masonry products.

The ratio of wage rolls is nearly 7½ to 1 in favor of the gold standard States, showing not only a concentration of manufacturing industry, but a higher average proportion of wages to total product.

MORTGAGE INDEBTEDNESS.

Of the total amount of real estate mortgages, the percentages in the gold standard region greatly exceeds that for population, showing a far higher mortgage indebtedness per inhabitant. It considerably exceeds

the percentage for real estate, showing a much higher ratio of indebtedness to value of property mortgaged. New York, alone, owes on real estate 43 per cent more than all the free silver States combined.

Column 15 presents a comparison of the rate of interest in the two areas. Not only is the general average for the free silver area more than one-third higher, but there is a definite limit, 7⅜ per cent, above which are found but three gold standard States, while but two free silver States fall below it.

Of the many factors by which the prevailing rate of interest is affected, the most important is credit. As the one rises the other falls. Defining interest as the difference in value between a dollar in hand now and the prospect of a dollar in hand a year hence, it directly follows that nothing can operate more powerfully to increase it than enfeebling that prospect.

COMPARISON OF SILVER PRODUCT.

The production of silver shows a proportion of 42 to 1 in favor of the free silver States. But one of the gold standard States, and that a close one (California), produces more than an insignificant amount of silver. The free silver territory is made up, as is shown by comparison of column 6, of (1) twelve States in which the ratio of native white illiteracy is higher than the average for all the States (higher, also, than every State but two in the gold standard series); (2) of the five States of largest silver production, and (3) of States immediately adjoining the last, and doubtless influenced by sympathy with them.

SAVINGS-BANK DEPOSITORS.

Reports of savings banks are made annually by the Comptroller of the Currency, who endeavors in some measure to fill out incomplete returns by estimate, and offers his figures for all institutions not under the national system as "such information as the Comptroller has been able to obtain," from the courtesy of State officers and the banks themselves. If the institutions reporting may be accepted as representatives of those that fail to report, it is to be inferred that the depositors in the savings banks of the gold standard region outnumber those of the free silver States by 75 to 1.

The free silver movement was sometimes characterized in the campaign preceding the election as a crusade against all credit, and particularly against such credit as is embodied in savings-bank accounts. The figures in columns 19 and 20 of Table I, imperfect though they doubtless are, furnish emphatic testimony as to the views of the depositors themselves.

ILLUSTRATIVE MAP.

In the accompanying map (fig. 1) the two series of States are distinguished by difference of shading. The territory comprising the gold standard States, except for two detached Pacific States, is a

crescent-shaped area stretching from Maine on the east, by Kentucky on the south, to North Dakota on the west, about the Great Lakes as

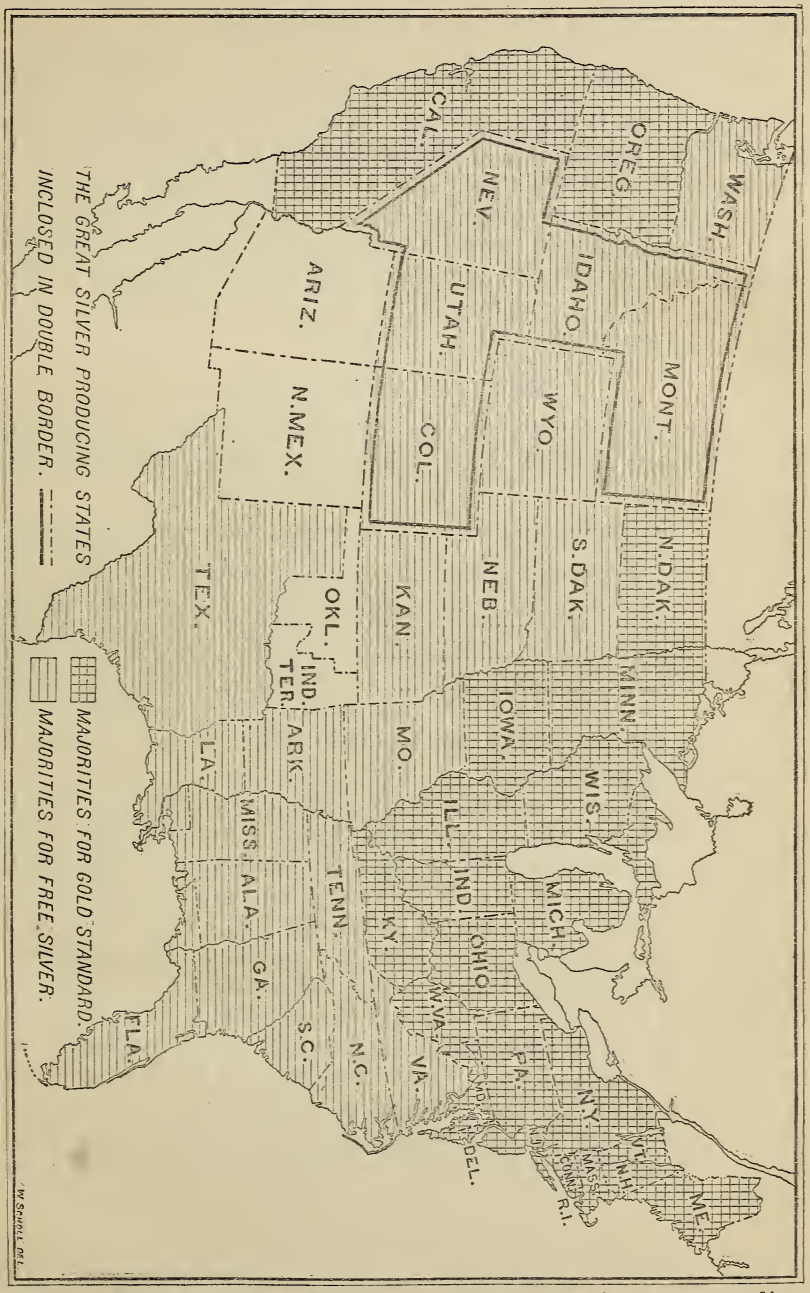


Fig. 1.—Map showing gold-standard and free-silver States in 1896.

a center. The territory comprising the free silver States, extending from northwest to southeast across the country, in a broad continuous

band, covers most of the mountain States and all the cotton States. The leading States in silver production, five in number, are contiguous and are indicated by inclosure in a double border line.

THE PURCHASING POWER OF AGRICULTURAL PRODUCTION.

For the prices of the products which our farmer has to sell, a recent publication (Circular No. 1) of the Division of Statistics, giving the "Acreage, Production, and Value of Principal Farm Crops in the United States, 1866 to 1895," is followed; the prices from 1866 to 1878 being reduced to a gold bases by applying the average gold premiums stated in the introduction, and the three leading crops being weighted according to importance, as gauged by amount of product, thus furnishing an adopted average.

THREE IMPORTANT CROPS.

The total product and total value of the country's six leading staples for the average of eight years ending with 1895 are approximately as follows:

Articles.	Product.	Value.
Corn ..... bushels..	1,783,000,000	$650,000,000
Hay ..... tons..	51,200,000	451,000,000
Wheat ..... bushels..	470,000,000	322,000,000
Cotton ..... pounds..	3,750,000,000	276,000,000
Oats ..... bushels..	688,000,000	200,000,000
Potatoes ..... do....	197,000,000	90,000,000

Tobacco, which probably comes next in order, has a total value less than half that of potatoes.

From the prices forming the adopted average, that of cotton is excluded, first, because the returns of that crop for these thirty years are not given in Circular No. 1; secondly, because its abnormal price for the early years was due to circumstances peculiarly affecting the cotton-growing area, and not to be accepted as an indication of the condition of agriculture throughout the country. The inclusion of this crop would have made the average fall in prices more abrupt, particularly for the earlier years, while the effect of including oats, the next crop in order, whose price fluctuations have been hardly more marked than those of hay, would have been to lessen that average fall. There is no reason for doubting, on the whole, that the use of the three leading crops leads to practically the same results that would be reached by making the computation more extended and complicated.

TABLE OF GOLD VALUES.

For convenience of calculation, numbers nearly proportional to the average product above tabulated were used as weights in combining the prices of the three leading crops. Using a divisor from 17,000,000

to 18,000,000, we derive as an average proportionate production for every 100 bushels of corn raised, 3 tons of hay, and 27 bushels of wheat. Table II gives the farm value, reduced to a gold unit, of 100 bushels of corn in dollars, followed by that of the corresponding amounts of the other crops similarly stated. The three numbers, being added, give the farm value of the combination, or approximately the relative value, to the farmer himself, of a constant unit of his production. Since the comparison is with a gold dollar, a fall in this sum may be accepted as indicating a proportionate rise in the purchasing power of gold over agricultural product.

TABLE II.—*Gold values of farm products and silver.*

Years.	Gold value of—					
	100 bushels of corn.	3 tons of hay.	27 bushels of wheat.	Sum of three.	37,125 grains of silver.	100 bushels of wheat.
1866	$49	$31	$42	$122	$104	$156
1867	58	31	38	127	103	144
1868	45	29	27	101	103	102
1869	57	29	19	105	102	71
1870	48	36	24	108	103	91
1871	43	43	30	116	103	113
1872	35	39	30	104	102	110
1873	42	33	27	102	100	102
1874	58	36	23	117	99	85
1875	36	32	24	92	96	88
1876	33	26	25	84	89	93
1877	34	25	28	87	93	103
1878	32	21	21	74	89	77
1879	37	28	30	95	87	111
1880	39	35	26	100	89	95
1881	64	35	32	131	88	119
1882	49	29	24	102	88	88
1883	42	25	25	92	86	91
1884	36	25	17	78	86	65
1885	33	26	21	80	82	77
1886	37	25	19	81	77	69
1887	44	30	19	93	76	68
1888	34	26	25	85	73	93
1889	28	24	19	71	72	79
1890	51	23	22	96	81	84
1891	41	25	23	89	76	84
1892	39	26	17	82	67	62
1893	36	26	15	77	60	54
1894	46	26	13	85	49	49
1895	25	25	14	64	51	51

The sixth column of Table II gives, for comparison, the commercial value of the amount of pure silver, 37,125 grains, that goes to the making of 100 standard silver dollars; in other words, the ratio per cent of bullion value to "coining value" of silver.

EXPLANATION OF THE DIAGRAM.

The accompanying diagram (fig. 2) shows graphically the gold values in Table II. In addition to the crooked lines connecting the two series of yearly prices two straight lines are drawn, the first of them representing, as nearly as a uniform rate can represent it, the general course of agricultural values, and the second the general course of silver values since 1872. The value of the adopted combination of three crops in this approximation becomes equal to $100 in 1874,

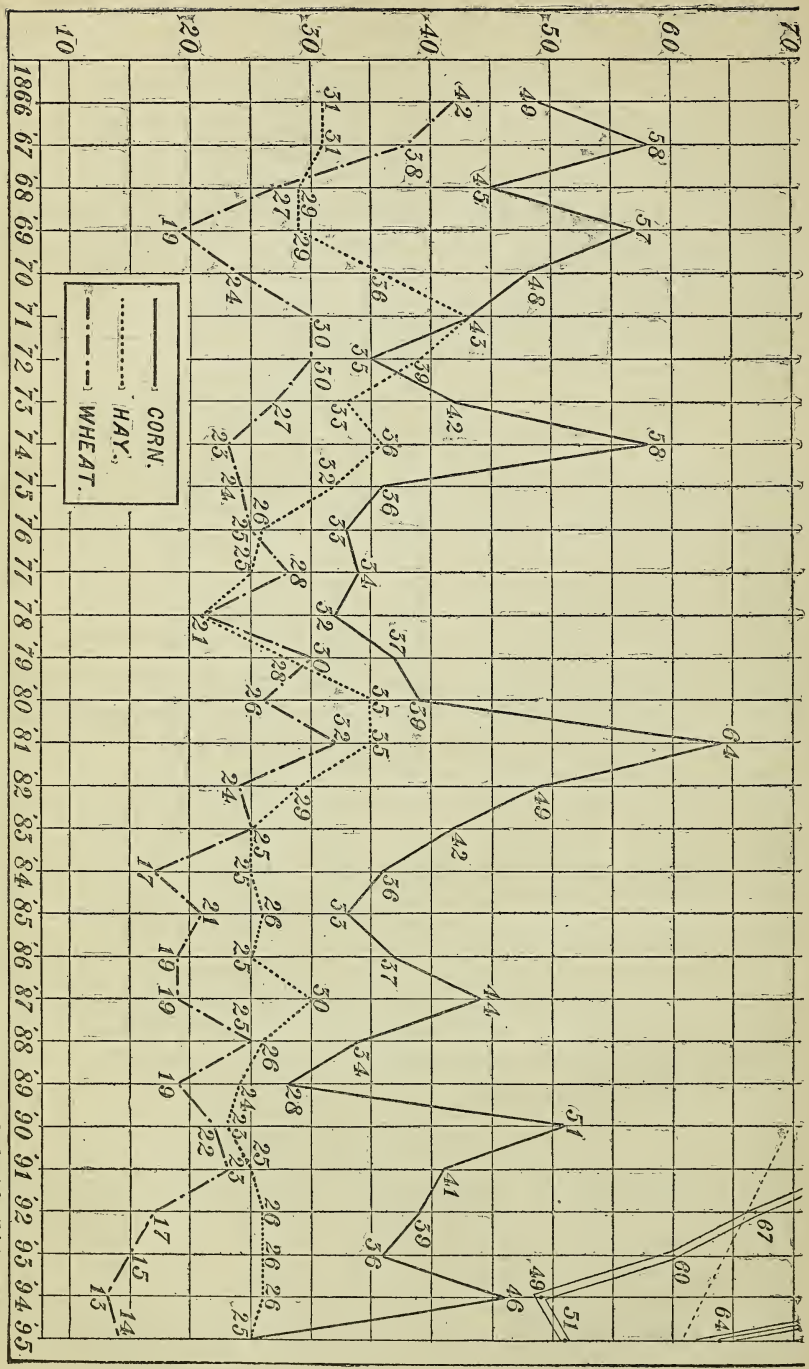
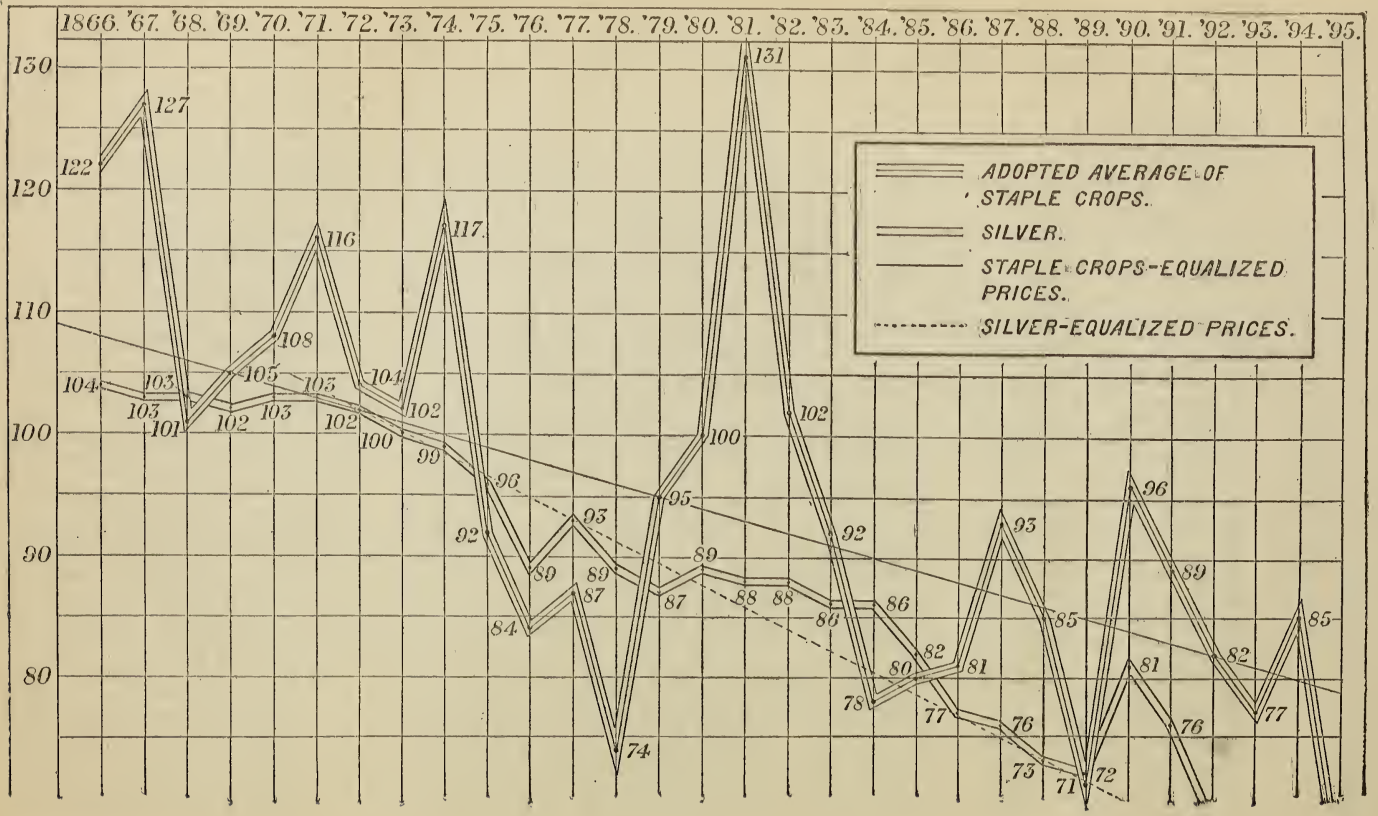


Fig. 2.—Diagram showing gold prices of an adopted average of staple crops and of silver, together with gold prices of corn, hay, and wheat for thirty years.


1866. '67. '68. '69. '70. '71. '72. '73. '74. '75. '76. '77. '78. '79. '80. '81. '82. '83. '84. '85. '86. '87. '88. '89. '90. '91. '92. '93. '94. '95.
130
120
110
100
90
80
ADOPTED AVERAGE OF STAPLE CROPS.
SILVER.
STAPLE CROPS-EQUALIZED PRICES.
SILVER-EQUALIZED PRICES.
122
127
104
103
101
102
103
105
108
103
102
116
104
100
102
99
117
92
96
84
89
93
87
89
74
87
88
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100
131
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102
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77
85

diminishing by $1 for every year covered by the table, from $108 in 1866 to $79 in 1895. The value of silver similarly becomes $100 in 1873, diminishing by $1.80 annually, so that it falls from the same value as that of the combined crops in 1872, $102, to $60 in 1895. The straight line for silver price in no way represents the market value of that metal for the years back of 1871; that for agricultural commodities, on the contrary, applies to the early years no less than to the later. It will easily be seen that if the fluctuations from year to year are ascribed altogether to varying seasons and business adversity or prosperity, a uniform change of price being assumed for farm products and for silver, the same rate of change will not do for both.

FLUCTUATIONS IN AGRICULTURAL PRICES.

It will be observed that the years in which violent oscillations of the agricultural price line show themselves are usually years when the price of some one of the three crops is especially affected, and in most cases there is little difficulty in discovering the reason. For example, the effect of especially short corn crops in 1867, 1874, 1881, 1887, 1890, and 1894 in increasing the price, and that of especially abundant crops of the same cereal in 1884, 1885, 1889, and 1895 in cheapening it, are plainly shown in the table, not only in the corn price, but in that of the sum. Short hay crops and high prices affect the whole combination in the years 1871, 1880, and 1887, while good crops and low prices produce the reverse effect in 1878 and 1884. Low prices for wheat coincided with abundant wheat crops in 1878, 1884, and 1886; high prices with deficient crops in 1866 and 1871. These exceptional crops in large measure account for the violent disturbances of the price line.

In some of these an abundant yield of one crop is offset by a deficient yield of another, and in other years, such as 1867 and 1891, prices in this country were upheld by exceptionally strong demand in Europe. The prices in the years last noted are relatively higher for wheat than for other crops, as the table proves.

Besides the fluctuations depending on vicissitudes of season, affecting the price for a single year, there will be noted a few others extending over several years of varying seasons. These are explained by commercial conditions. The period of low prices from 1875 to 1878, followed by a sudden revival in 1879; the fall from 1884 to 1886, and the similar one beginning in 1893, are all reflections of business depressions and recoveries. If these factors had not existed in addition to those already noted, the movement of agricultural prices for the thirty years covered might have nearly approached the uniform diminution shown in the straight line of the diagram.

FARM PRODUCTS AND SILVER.

The price of wheat has often been used as a test of the value standard, and great stress has been laid upon the general correspondence between the price variations of this grain and those of silver. The

farm value of 100 bushels of wheat is given, on a gold basis, in the last column of Table II, and a comparison of its course with that of the commercial value of 37,125 grains of silver shows some points of agreement and some points of contrast. There are divergences explained by exceptional crops and others by exceptional foreign demand, as shown above. Moreover, in the wheat price is observable a greater sensitiveness to financial conditions, which is doubtless itself an effect of foreign demand. Attending only to the points of agreement, and assuming that agreement as exact, the inference is easily drawn that, in order to denote a constant purchasing power over wheat, gold ought to have been abandoned and silver followed as soon as the relative commercial value of the two began to show a wide difference from the accepted coinage value.

But without denying that some such correspondence exists, it should nevertheless be firmly borne in mind that wheat is not the only crop grown in the United States. It is not the most important crop grown. It does not even stand second in importance. If we consider the products which outrank it, we find in neither the first nor the second of them any such correspondence with the price of silver as is shown for wheat. While the gold price of corn and hay has somewhat diminished in the course of the thirty years, their silver price has increased in greater measure; so that if, by a failure to pass the mint act in 1873, the country had been reduced to a silver standard after that year, neither the price of corn nor that of hay would have been so well represented as it has been by the gold standard actually maintained.

In the line showing the prices of the three most important products wheat is allowed its fair weight; but it fails to bring down the agricultural line to a coincidence, or even nearly to a coincidence, with the silver line. Except for the years of business depression, 1875–1878, 1884 and 1885, and the year of large production and scanty foreign demand, 1889, the course of silver prices has been uniformly far below the agricultural; and if we regard the uniform straight line as giving the true course of farm prices on a gold basis we find them separating from silver in 1872, never again to meet it.

It may be that in a supplement to this circular some additional facts bearing upon the subject may be presented for consideration.

SUPPLEMENTARY NOTES.

Values for 1896.—To Table II may now be added the gold values for 1896: That of 100 bushels of corn is $21, that of 3 tons of hay $20, of 27 bushels of wheat $20, sum $61; that of 37,125 grains of silver $52, of 100 bushels of wheat $73. The continuing commercial depression, aided by an unprecedented corn crop, brings the combined value of farm staples to an exceptionally low point, the considerably increased wheat price being insufficient to balance the reductions in other staples.

The weight of pure silver in the standard silver dollar is 371¼ grains, the remaining 41¼ grains being alloy.